Please cancel Claims 1 to 30 without prejudice or disclaimer of subject matter and add new Claims 31 to 45 as shown below. The claims, as currently pending in the application, read as follows.

1. to 30. (Canceled)

31. (New) An image processing apparatus, comprising:

input means for inputting image data that has been converted into coefficients based on a spatial frequency; and

extraction means for extracting a specific image area of the input image by using low frequency component data of the image data input by said input means, the specific image area having color component values within a predetermined range and having a predetermined shape.

32. (New) The apparatus according to Claim 31, wherein the coefficients of the input image data are obtained by wavelet conversion, and said extraction means extracts the specific image area by using the lowest frequency coefficients of said coefficients.

33. (New) The apparatus according to Claim 31, further comprising quantization means for quantizing the coefficients of the input image data,

wherein said quantization means changes quantization characteristics based on the specific image area extracted by said extraction means.

34. (New) The apparatus according to Claim 33, wherein the coefficients of the input image data are obtained by wavelet conversion, and said quantization means determines quantization coefficients for each of spatial components obtained by the wavelet conversion so that a quantization step for higher frequency components is larger than a quantization step for lower frequency components.

35. (New) The apparatus according to Claim 31, wherein said extraction means searches a central portion of the input image for the specific area prior to searching other areas of the input image.

36. (New) An image processing method, comprising the steps of:

an input step of inputting image data that has been converted into coefficients based on a spatial frequency; and

an extraction step of extracting a specific image area of the input image by using low frequency component data of the image data input at the input step, the specific image area having color component values within a predetermined range and having a predetermined shape.

37. (New) The method according to Claim 36, wherein the coefficients of the input image data are obtained by wavelet conversion, and said extraction step extracts the specific image area by using the lowest frequency coefficients of said coefficients.

38. (New) The method according to Claim 36, further comprising a quantization step of quantizing the coefficients of the input image data,

wherein said quantization step changes quantization characteristics based on the specific image area extracted by said extraction step.

39. (New) The method according to Claim 38, wherein the coefficients of the input image data are obtained by wavelet conversion, and said quantization step determines quantization coefficients for each of spatial components obtained by the wavelet conversion so that a quantization step for higher frequency components is larger than a quantization step for lower frequency components.

40. (New) The method according to Claim 36, wherein said extraction step searches a central portion of the input image for the specific area prior to searching other areas of the input image.

41. (New) A storage medium on which is stored a control program for causing a computer to implement an image processing method, the method comprising the steps of:

an input step of inputting image data that has been converted into coefficients based on a spatial frequency; and

an extraction step of extracting a specific image of the input image by using low frequency component data of the image data input at the input step, the specific image area having color component values within a predetermined range and having a predetermined shape.

42. (New) The storage medium according to Claim 41, wherein the coefficients of the input image data are obtained by wavelet conversion, and said extraction step extracts the specific image area by using the lowest frequency coefficients of said coefficients.

43. (New) The storage medium according to Claim 41, further comprising a quantization step of quantizing the coefficients of the input image data,

wherein said quantization step changes quantization characteristics based on the specific image area extracted by said extraction step.

44. (New) The storage medium according to Claim 43, wherein the coefficients of the input image data are obtained by wavelet conversion, and said quantization step determines quantization coefficients for each of spatial components obtained by the wavelet conversion so that a quantization step for higher frequency components is larger than a quantization step for lower frequency components.

45. (New) The storage medium according to Claim 41, wherein said extraction step searches a central portion of the input image for the specific area prior to searching other areas of the input image.